

Helmut Ermert

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

134
papers

2,880
citations

29
h-index

50
g-index

160
ext. papers

3,302
ext. citations

2.8
avg, IF

4.61
L-index

#	Paper	IF	Citations
134	Quantitative Determination of Local Density of Iron Oxide Nanoparticles Used for Drug Targeting Employing Inverse Magnetomotive Ultrasound. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2021 , 68, 2482-2495	3.2	1
133	An Enhanced Magnetomotive Ultrasound Algorithm to Quantitatively Estimate the Concentration of Iron-Oxide Nanoparticles in Perfused Tissue for Magnetic Drug Targeting 2019 ,		1
132	Modification of in vitro degradation behavior of pure iron with ultrasonication treatment: Comparison of two different pseudo-physiological solutions. <i>Materials Science and Engineering C</i> , 2019 , 95, 275-285	8.3	9
131	A real-time ultrasound process tomography system using a reflection-mode reconstruction technique. <i>Flow Measurement and Instrumentation</i> , 2017 , 53, 107-115	2.2	15
130	Sonographic detection of magnetic nanoparticles for Magnetic Drug Targeting using coded magnetic fields 2016 ,		5
129	3D-pulse-echo-tomography for breast cancer and rheumatoid arthritis diagnosis Add-on-system and latest in-vivo-results 2016 ,		1
128	Ultrasonic Defect Characterization in Heavy Rotor Forgings by Means of the Synthetic Aperture Focusing Technique and Optimization Methods. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2016 , 63, 874-85	3.2	7
127	Sonographic detection of magnetic nanoparticles for Magnetic Drug Targeting in weak echogenic tissue 2015 ,		2
126	An ultrasound tomography system with polyvinyl alcohol (PVA) moldings for coupling: in vivo results for 3-D pulse-echo imaging of the female breast. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2015 , 62, 266-79	3.2	5
125	Simulation of full-angle ultrasound process tomography with two-phase media using a ray-tracing technique 2014 ,		6
124	Simulation and evaluation of fan-shaped beam ultrasound transducers for multiphase flow process tomography 2013 ,		2
123	High-Frequency Ultrasonic Systems for High-Resolution Ranging and Imaging 2013 , 93-123		
122	Artifact reduction in non-destructive testing by means of complementary data fusion of x-ray computed tomography and ultrasonic pulse-echo testing. <i>Measurement Science and Technology</i> , 2013 , 24, 125403	2	9
121	Investigation of the Synthetic Aperture Focusing Technique resolution for heavy rotor forging ultrasonic inspection 2013 ,		1
120	Ultrasonic defect detection in multi-material, axis-symmetric devices with an improved synthetic aperture focusing technique (SAFT) 2012 ,		1
119	2D transmission imaging with a crossed-array configuration for defect detection 2012 ,		1
118	Measurement and multivariate analysis of ultrasound parameters for quantitative characterization of liquids 2012 ,		3

117	Numerical Ray-Tracing in Full Angle Spatial Compounding. <i>Acoustical Imaging</i> , 2012 , 103-113		2
116	A high-frequency ultrasound imaging system combining limited-angle spatial compounding and model-based synthetic aperture focusing. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2011 , 58, 1355-65	3.2	24
115	Quantitative analysis of liquids and emulsions by means of high-frequency ultrasound (15.5 MHz) 2011 ,		1
114	Computer aided diagnosis of parotid gland lesions using ultrasonic multi-feature tissue characterization. <i>Ultrasound in Medicine and Biology</i> , 2010 , 36, 1525-34	3.5	9
113	Ultrasonic microscanning. <i>Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine</i> , 2010 , 224, 225-40	1.7	11
112	Ultrasound computed tomography in breast imaging: first clinical results of a custom-made scanner. <i>Ultraschall in Der Medizin</i> , 2010 , 31, 604-9	3.8	7
111	Refraction and time of flight corrections in 3D ultrasound computed tomography 2010 ,		3
110	A method to expedite data acquisition for multiple spatial-temporal analyses of tissue perfusion by contrast-enhanced ultrasound. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2009 , 56, 507-19	3.2	3
109	Ultrasonic Two-Port Measurements for the Reconstruction of Layered Media Properties. <i>Frequenz</i> , 2009 , 63,	0.6	3
108	Determination of a mean sound velocity in the female breast for artifact reduction in Full Angle Spatial Compounding 2009 ,		3
107	Limited-angle spatial compound imaging of skin with high-frequency ultrasound (20 MHz). <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2008 , 55, 1975-83	3.2	25
106	Three-dimensional reconstruction of fine vascularity in ultrasound breast imaging using contrast-enhanced spatial compounding: in vitro analyses. <i>Academic Radiology</i> , 2008 , 15, 1155-64	4.3	7
105	Full angle spatial compounding for improved replenishment analyses in contrast perfusion imaging: in vitro studies. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2008 , 55, 819-31	3.2	8
104	3D small animal imaging with high-frequency ultrasound (20 MHz) using limited-angle spatial compounding 2008 ,		3
103	Parametric imaging of specular reflections and diffuse scattering of tissue from multi-directional ultrasound echo signal data 2008 ,		3
102	Ultrasound breast imaging using Full Angle Spatial Compounding: In-vivo results 2008 ,		6
101	Ultrasonic Strain Imaging and Reconstructive Elastography for Biological Tissue 2008 , 103-132		
100	In vivo ultrasound biomicroscopy of skin: spectral system characteristics and inverse filtering optimization. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2007 , 54, 1551-9	3.2	34

99	11B-3 A Unified Transmission/Reflection Acoustic Tomography Scheme for Small Animal Tissue Characterization. <i>Proceedings IEEE Ultrasonics Symposium, 2007,</i>		3
98	Feasibility of contrast-enhanced sonography during resection of cerebral tumours: initial results of a prospective study. <i>Ultrasound in Medicine and Biology, 2007, 33, 571-5</i>	3.5	50
97	Preoperative ultrasonic assessment of thin melanocytic skin lesions using a 100-MHz ultrasound transducer: a comparative study. <i>Dermatologic Surgery, 2007, 33, 818-24</i>	1.7	36
96	P3D-1 An Analysis of Refraction Artifacts in Time-of-Flight Tomography Regarding their Impact on Image Definition and Contrast Resolution. <i>Proceedings IEEE Ultrasonics Symposium, 2007,</i>		1
95	P1C-1 Evaluation of Material Parameters of PVA Phantoms for Reconstructive Ultrasound Elastography. <i>Proceedings IEEE Ultrasonics Symposium, 2007,</i>		3
94	An ultrasound research interface for a clinical system. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2007, 54, 198-210</i>	3.2	66
93	P5B-1 A Fast Method for Data Acquisition in Contrast Replenishment Analyses. <i>Proceedings IEEE Ultrasonics Symposium, 2007,</i>		3
92	9C-2 Reconstruction of Speed of Sound for a Correction of Transit Time in Full Angle Spatial Compounding. <i>Proceedings IEEE Ultrasonics Symposium, 2007,</i>		7
91	7C-4 A Novel Approach to Assess the Stiffness of Vessels by Means of Pulse Wave Analysis in Transcutaneous Ultrasound. <i>Proceedings IEEE Ultrasonics Symposium, 2007,</i>		1
90	Ultrasonographic contrast-agent imaging of sub-millimeter vessel structures with spatial compounding: in vitro analyses. <i>Biomedizinische Technik, 2007, 52, 274-83</i>	1.3	8
89	Ultrasound Based Navigation System for Minimal Invasive Surgery at the Lumbar Spine within OrthoMIT 2007, 224-229		
88	Real Time Neuronavigation Using 3-D Ultrasound and MRI in Patients with Brain Tumor 2007, 59-63		1
87	A New High Frequency Ultrasound Skin Imaging System: Imaging Properties and Clinical in Vivo Results. <i>Acoustical Imaging, 2007, 137-144</i>		8
86	Classification of Thermally Ablated Tissue Using Diagnostic Ultrasound. <i>Acoustical Imaging, 2007, 295-300</i>		2
85	Contour tracking of specularly reflecting surfaces. <i>Ultrasonics, 2006, 44 Suppl 1, e1089-92</i>	3.5	1
84	Schlieren visualization of ultrasonic wave fields with high spatial resolution. <i>Ultrasonics, 2006, 44 Suppl 1, e1561-6</i>	3.5	51
83	Investigation of the influence of blood flow rate on large vessel cooling in hepatic radiofrequency ablation. <i>Biomedizinische Technik, 2006, 51, 337-46</i>	1.3	22
82	4C-4 A New Designed Schlieren System for the Visualization of Ultrasonic Pulsed Wave Fields with High Spatial and Temporal Resolution 2006,		4

81	An ultrasound research interface for a clinical system. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2006 , 53, 1759-71	3.2	29
80	Ultrasonic strain imaging and reconstructive elastography for biological tissue. <i>Ultrasonics</i> , 2006 , 44 Suppl 1, e199-202	3.5	29
79	High-Resolution Sonography of the Epidermis In Vivo 2006 , 245-255		2
78	Initial experiences with real-time elastography guided biopsies of the prostate. <i>Journal of Urology</i> , 2005 , 174, 115-7	2.5	205
77	Ultrasound elastography for the age determination of venous thrombi. Evaluation in an animal model of venous thrombosis. <i>Thrombosis and Haemostasis</i> , 2005 , 93, 368-74	7	42
76	In vivo evaluation and in vitro accuracy measurements for an ultrasound-CT registration algorithm. <i>International Congress Series</i> , 2005 , 1281, 583-588		5
75	Development and evaluation of a high-frequency ultrasound-based system for in vivo strain imaging of the skin. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2005 , 52, 375-385	3.2	55
74	3D Geometry Detection by Sparse Ultrasonic Transducer Arrays for Sheet Metal Hydroforming. <i>Steel Research International</i> , 2005 , 76, 874-878	1.6	
73	Vibrography during tumor neurosurgery. <i>Journal of Ultrasound in Medicine</i> , 2005 , 24, 985-92	2.9	35
72	Electrorheological tactel elements. <i>Mechatronics</i> , 2005 , 15, 883-897	3	20
71	Sonohistology for the computerized differentiation of parotid gland tumors. <i>Ultrasound in Medicine and Biology</i> , 2005 , 31, 1287-96	3.5	14
70	Trends in Time Series of Parameters from Ultrasonic Images Due to Metabolic Activities of the Human Liver 2005 , 445-449		1
69	High Frequency Ultrasonic Imaging: System Design and Performance Optimization. <i>Frequenz</i> , 2005 , 59,	0.6	7
68	A NEW ER FLUID BASED HAPTIC ACTUATOR SYSTEM FOR VIRTUAL REALITY. <i>International Journal of Modern Physics B</i> , 2005 , 19, 1628-1634	1.1	4
67	A tutorial on the use of ROC analysis for computer-aided diagnostic systems. <i>Ultrasonic Imaging</i> , 2005 , 27, 181-98	1.9	19
66	Entwicklung eines haptischen Sensor-Aktor-Systems für Anwendungen in der virtuellen Realität 2005 , 237-241		
65	Beurteilung der Hirnperfusion bei Schlaganfallpatienten durch Auswertung von Kontrastmittel-Ultraschall-Bildserien 2005 , 415-419		
64	Vibrography: first experimental results in swine brains. <i>Minimally Invasive Neurosurgery</i> , 2004 , 47, 79-85		3

63	Ultrasonic imaging of sheet metal forming. <i>Ultrasonics</i> , 2004 , 42, 989-92	3.5	5
62	Palpation imaging using a haptic system for virtual reality applications in medicine. <i>Studies in Health Technology and Informatics</i> , 2004 , 98, 147-53	0.5	17
61	Ultrasound Based Methods for Monitoring of Thermal Therapies. <i>Acoustical Imaging</i> , 2004 , 643-649		
60	Ultrasound Spiral Computed Tomography for Differential Diagnosis of Breast Tumors Using a Conventional Ultrasound System. <i>Acoustical Imaging</i> , 2004 , 627-633		8
59	A Novel Approach for Ultrasonic Imaging of Sheet Contours for Hydroforming. <i>Acoustical Imaging</i> , 2004 , 17-23		3
58	Comparison of high frequency ultrasound and optical coherence tomography as modalities for high resolution and non invasive skin imaging. <i>Biomedizinische Technik</i> , 2003 , 48, 116-21	1.3	52
57	Real-time detection of vessel diameters with ultrasound. <i>Biomedizinische Technik</i> , 2003 , 48, 141-6	1.3	8
56	In vivo biomicroscopy of the skin with high-resolution magnetic resonance imaging and high frequency ultrasound. <i>Biomedizinische Technik</i> , 2003 , 48, 130-4	1.3	15
55	Contrast burst depletion imaging (CODIM): a new imaging procedure and analysis method for semiquantitative ultrasonic perfusion imaging. <i>Stroke</i> , 2003 , 34, 77-83	6.7	50
54	Technologies for haptic displays in teleoperation. <i>Industrial Robot</i> , 2003 , 30, 525-530	1.4	5
53	A New Haptic Sensor Actuator System for Virtual Reality Applications in Medicine. <i>Lecture Notes in Computer Science</i> , 2003 , 132-140	0.9	3
52	Geometrical optimization of a phased array coil for high-resolution MR imaging of the carotid arteries. <i>Magnetic Resonance in Medicine</i> , 2003 , 50, 439-43	4.4	18
51	Ultrasonic multifeature tissue characterization for prostate diagnostics. <i>Ultrasound in Medicine and Biology</i> , 2003 , 29, 1137-49	3.5	62
50	Parameters of cerebral perfusion in phase-inversion harmonic imaging (PIHI) ultrasound examinations. <i>Ultrasound in Medicine and Biology</i> , 2003 , 29, 1379-85	3.5	45
49	Bone registration with 3D CT and ultrasound data sets. <i>International Congress Series</i> , 2003 , 1256, 426-432		4
48	Strain imaging with intravascular ultrasound array scanners: validation with phantom experiments. <i>Biomedizinische Technik</i> , 2003 , 48, 135-40	1.3	6
47	A nonuniform sampling approach for fast ultrasonic flow imaging. <i>Biomedizinische Technik</i> , 2003 , 48, 147-51	1.3	
46	Ultrasonic tissue characterization for prostate diagnostics: spectral parameters vs. texture parameters. <i>Biomedizinische Technik</i> , 2003 , 48, 122-9	1.3	13

45	Comparison between echo contrast agent-specific imaging modes and perfusion-weighted magnetic resonance imaging for the assessment of brain perfusion. <i>Stroke</i> , 2002 , 33, 2433-7	6.7	47
44	A Method for Detecting Echoes from Microbubble Contrast Agents Based on Time Variance 2002 , 287-294		
43	Assessment of brain perfusion with echo contrast specific imaging modes and Optison. <i>Academic Radiology</i> , 2002 , 9 Suppl 2, S386-8	4.3	7
42	New Development of an Ultrasound Transmission Camera. <i>Acoustical Imaging</i> , 2002 , 397-404		
41	Freehand ultrasound elastography of breast lesions: clinical results. <i>Ultrasound in Medicine and Biology</i> , 2001 , 27, 1461-9	3.5	160
40	Synthetic aperture-based beam compression for intravascular ultrasound imaging. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2001 , 48, 189-201	3.2	10
39	Segmentation of 3D intravascular ultrasonic images based on a random field model. <i>Ultrasound in Medicine and Biology</i> , 2000 , 26, 297-306	3.5	48
38	Contrast agent specific imaging modes for the ultrasonic assessment of parenchymal cerebral echo contrast enhancement. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2000 , 20, 1709-16	7.3	60
37	Ultrasonic assessment of brain perfusion. <i>Stroke</i> , 2000 , 31, 1460-2	6.7	19
36	Axial strain imaging using a local estimation of the scaling factor from RF ultrasound signals. <i>Ultrasonic Imaging</i> , 2000 , 22, 95-107	1.9	42
35	New real-time strain imaging concepts using diagnostic ultrasound. <i>Physics in Medicine and Biology</i> , 2000 , 45, 1423-35	3.8	69
34	Ultimate signal-to-noise-ratio of surface and body antennas for magnetic resonance imaging. <i>IEEE Transactions on Antennas and Propagation</i> , 2000 , 48, 418-428	4.9	58
33	System for real-time elastography. <i>Electronics Letters</i> , 1999 , 35, 941	1.1	20
32	High-frequency ultrasonic imaging and its applications in skin 1999 ,		4
31	A new system for the acquisition of ultrasonic multicompression strain images of the human prostate in vivo. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 1999 , 46, 1147-54	3.2	69
30	Sonography of the skin at 100 MHz enables in vivo visualization of stratum corneum and viable epidermis in palmar skin and psoriatic plaques. <i>Journal of Investigative Dermatology</i> , 1999 , 113, 821-9	4.3	81
29	A time-efficient and accurate strain estimation concept for ultrasonic elastography using iterative phase zero estimation. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 1999 , 46, 1057-67	3.2	216
28	Tissue-characterization of the prostate using radio frequency ultrasonic signals. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 1999 , 46, 126-38	3.2	57

27	Linear synthetic aperture modes for ultrasonic pulse-echo imaging. <i>Biomedizinische Technik</i> , 1997 , 42, 108-15	1.3	6
26	Analysis of vacuum microelectronic components by the use of special finite elements. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 1996 , 14, 2100		3
25	A 100-MHz ultrasound imaging system for dermatologic and ophthalmologic diagnostics. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 1996 , 43, 545-552	3.2	160
24	Cross-flow visualization by acoustic CT measurements. <i>Ultrasonics</i> , 1996 , 34, 517-522	3.5	6
23	Reconstruction of fluid motion in acoustic diffraction tomography. <i>Journal of the Acoustical Society of America</i> , 1996 , 99, 3029-3035	2.2	15
22	Color-Coded Tissue Characterization Images of the Prostate. <i>Acoustical Imaging</i> , 1996 , 359-364		2
21	Comparison of Plane Wave Decomposition and Ray-Tracing in Simulation of B-Mode Imaging in Layered Media. <i>Acoustical Imaging</i> , 1996 , 57-62		1
20	Characterization of field emitter structures by means of modeling electron trajectories in vacuum. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 1995 , 13, 545		1
19	Systemtheoretische Analyse des Ultraschallkontrastmittels Levovist. <i>Biomedizinische Technik</i> , 1995 , 40, 271-272	1.3	2
18	In Vivo Study of Online Liver Tissue Classification Based on Envelope Power Spectrum Analysis. <i>Ultrasonic Imaging</i> , 1994 , 16, 77-86	1.9	7
17	. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 1994 , 41, 333-339	3.2	95
16	. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 1994 , 41, 655-659	3.2	114
15	Über die Problematik des experimentellen Vergleichs der Wirkung von Lithotripter-Systemen. <i>Aktuelle Urologie</i> , 1994 , 25, 26-30	0.4	1
14	The optimum bandwidth of chirp signals in ultrasonic applications. <i>Ultrasonics</i> , 1993 , 31, 417-420	3.5	33
13	An acoustic sensor system for object recognition. <i>Sensors and Actuators A: Physical</i> , 1991 , 26, 541-547	3.9	15
12	Analyse der TE _{0nm} -Schwingungen geschirmter dielektrischer Zylinder mit der Methode der finiten Elemente. <i>Archiv Fuer Elektrotechnik</i> , 1991 , 74, 213-217		
11	A Comparison of Broadband Holographic and Tomographic Imaging Concepts. <i>Acoustical Imaging</i> , 1991 , 381-390		5
10	Thermal coupling of particulates to substrates. <i>Applied Physics Letters</i> , 1985 , 46, 1054-1056	3.4	7

9	Lithotripsy in the common bile duct using ultrasound. Preliminary in vitro experiments. <i>Endoscopy</i> , 1984 , 16, 226-8	3-4	21
8	Noncontact thermal-wave imaging of subsurface structure with infrared detection. <i>Applied Physics Letters</i> , 1984 , 44, 1136-1138	3-4	13
7	Transfer function analysis of a quasioptical ultrasonic imaging system. <i>Ultrasonic Imaging</i> , 1984 , 6, 324-341		3
6	Ultrasound Computerized Tomography Using Transmission and Reflection Mode: Application to Medical Diagnosis. <i>Acoustical Imaging</i> , 1982 , 553-563		17
5	Guiding and radiation characteristics of planar waveguides. <i>IEE Journal on Microwaves, Optics and Acoustics</i> , 1979 , 3, 59		37
4	Gaussian beams in anisotropic media. <i>Electronics Letters</i> , 1970 , 6, 720	1.1	6
3			3
2			1
1			3